

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|-------|------|--|---|------------------|---------|------------------|
| L1 | 5827 | 372/43.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/03/30 09:31 |
| L2 | 82 | 1 and surface near3 emitting and phase and mode and refractive near3 index | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/03/30 09:31 |
| L3 | 4011 | 372/45.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/03/30 09:36 |
| L4 | 182 | 3 and surface near3 emitting and phase and mode and refractive near3 index | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/03/30 09:36 |
| L5 | 3216 | 372/46.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/03/30 09:41 |
| L6 | 140 | 5 and surface near3 emitting and phase and mode and refractive near3 index | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/03/30 09:41 |
| L7 | 119 | 6 not 2 | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/03/30 09:36 |
| L8 | 60 | 7 not 4 | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/03/30 09:37 |
| L9 | 741 | 372/49.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/03/30 09:42 |

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| L10 | 21 | 9 and surface near3 emitting and phase and mode and refractive near3 index | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/03/30 09:47 |
| L11 | 2149 | 372/50.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/03/30 09:47 |
| L12 | 147 | 11 and surface near3 emitting and phase and mode and refractive near3 index | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/03/30 09:42 |
| L13 | 127 | 12 not 2 | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/03/30 09:42 |
| L14 | 92 | 13 not 4 | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/03/30 09:43 |
| L15 | 68 | 14 not 6 | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/03/30 09:43 |
| L16 | 67 | 15 not 10 | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/03/30 09:43 |
| L17 | 168 | 372/54.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/03/30 09:48 |
| L18 | 2 | 17 and surface near3 emitting and phase and mode and refractive near3 index | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/03/30 09:48 |
| L19 | 645 | 372/18.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/03/30 09:50 |

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| L20 | 22 | 19 and surface near3 emitting and phase and mode and refractive near3 index | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/03/30 09:51 |
| L21 | 619 | 372/19.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/03/30 09:52 |
| L22 | 9 | 21 and surface near3 emitting and phase and mode and refractive near3 index | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/03/30 09:52 |
| L23 | 1327 | 372/75.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/03/30 09:53 |
| L24 | 28 | 23 and surface near3 emitting and phase and mode and refractive near3 index | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/03/30 09:53 |
| L25 | 795 | 372/98.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/03/30 09:54 |
| L26 | 18 | 25 and surface near3 emitting and phase and mode and refractive near3 index | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/03/30 09:54 |
| L27 | 1264 | 372/99.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/03/30 09:56 |
| L28 | 72 | 27 and surface near3 emitting and phase and mode and refractive near3 index | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/03/30 09:56 |
| L29 | 492 | 372/103.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/03/30 09:56 |

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| L30 | 3 | 29 and surface near3 emitting and phase and mode and refractive near3 index | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/03/30 09:56 |
| S1 | 49 | vcsl and (holes or recess) and 372/43.ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT | OR | OFF | 2004/11/13 18:24 |
| S2 | 63 | vcsl and (hole\$1 or recess defect\$1) and 372/43.ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT | OR | OFF | 2004/04/26 16:01 |
| S3 | 63 | vcsl and (hole\$1 or recess or defect\$1) and 372/43.ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT | OR | OFF | 2004/04/26 16:14 |
| S4 | 57 | vcsl and aperture\$1 and 372/43.ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT | OR | OFF | 2004/04/26 16:15 |
| S5 | 26 | (vcsl and aperture\$1 and 372/43.ccls.) not (vcsl and (hole\$1 or recess or defect\$1) and 372/43.ccls.) | US-PGPUB; USPAT; EPO; JPO; DERWENT | OR | OFF | 2004/04/26 16:15 |
| S6 | 14 | 372/19.ccls. and 372/43.ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT | OR | OFF | 2004/04/26 16:19 |
| S7 | 244 | 372/43.ccls. and (ridge or post) | US-PGPUB; USPAT | OR | OFF | 2004/04/27 10:39 |
| S8 | 46 | 372/43.ccls. and (post) | US-PGPUB; USPAT | OR | OFF | 2004/04/27 10:40 |
| S9 | 944 | 372/43.ccls. vcsl and etching near3 layer | USPAT | OR | OFF | 2004/04/27 16:08 |
| S10 | 805 | 372/43.ccls. vcsl and etching adj layer | USPAT | OR | OFF | 2004/04/27 16:09 |
| S11 | 791 | 372/43.ccls. vcsl and etching adj layer and holes | USPAT | OR | OFF | 2004/04/27 16:11 |
| S12 | 791 | 372/43.ccls. vcsl and etching adj layer and holes | USPAT | OR | OFF | 2004/04/27 16:12 |
| S13 | 1 | 372/43.ccls. and vcsl and etching adj layer and holes | USPAT | OR | OFF | 2004/04/27 16:12 |
| S14 | 1 | 372/43.ccls. and vcsl and etching adj layer | USPAT | OR | OFF | 2004/04/27 16:12 |
| S15 | 5 | 372/43.ccls. and vcsl and etch\$3 adj layer | USPAT | OR | OFF | 2004/04/27 16:38 |
| S16 | 58 | vcsl and etch\$3 adj layer | USPAT | OR | OFF | 2004/04/27 16:40 |

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|-----|--------|---|---|----|-----|------------------|
| S17 | 117 | vcSEL and etch\$3 near3 stop near3 layer | USPAT | OR | OFF | 2004/04/27 16:41 |
| S18 | 2 | ((("6683898") or ("5293392"))).PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2004/08/24 17:23 |
| S19 | 1 | ("20020141472").PN. | US-PGPUB; USPAT | OR | OFF | 2004/11/13 18:24 |
| S20 | 0 | ("1andopticalnear3loss").PN. | US-PGPUB; USPAT | OR | OFF | 2004/11/13 18:24 |
| S21 | 1 | S19 and optical near3 loss | US-PGPUB; USPAT | OR | OFF | 2004/11/13 18:25 |
| S22 | 449 | loss\$2 and mode\$1 and surface near3 emitting near3 laser and reflectivity and (boundary or interface) | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 19:17 |
| S23 | 235 | S22 and "372"/\$.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 19:17 |
| S24 | 256 | loss\$2 near3 optical and mode\$1 and surface near3 emitting near3 laser and reflectivity and (boundary or interface) | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 19:17 |
| S25 | 122 | S24 and "372"/\$.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 19:20 |
| S26 | 8 | S24 and light near3 spot\$1 | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 19:24 |
| S27 | 386850 | S24 spot\$1 | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 19:24 |
| S28 | 118 | S24 and spot\$1 | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 19:24 |
| S29 | 5699 | 372/43.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 19:46 |
| S30 | 168 | S29 and optical near3 loss\$2 | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 19:50 |

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| S31 | 17 | S30 and (mode near3 (selection or control or suppression or discriminat\$3)) | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 19:46 |
| S32 | 3901 | 372/45.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 19:50 |
| S33 | 380 | S32 and (mode near3 (selection or control or suppression or discriminat\$3)) | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 19:50 |
| S34 | 105 | S33 and optical near3 loss\$2 | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 19:46 |
| S35 | 3116 | 372/46.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 19:56 |
| S36 | 338 | S35 and (mode near3 (selection or control or suppression or discriminat\$3)) | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 19:56 |
| S37 | 84 | S36 and optical near3 loss\$2 | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 20:00 |
| S38 | 708 | 372/49.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 20:00 |
| S39 | 32 | S38 and (mode near3 (selection or control or suppression or discriminat\$3)) | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 20:00 |
| S40 | 2053 | 372/50.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 20:01 |
| S41 | 278 | S40 and (mode near3 (selection or control or suppression or discriminat\$3)) | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 20:02 |
| S42 | 61 | S41 and optical near3 loss\$2 | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 20:04 |

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| S43 | 1299 | 372/75.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 20:03 |
| S44 | 56 | S43 and (mode near3 (selection or control or suppression or discriminat\$3)) | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 20:03 |
| S45 | 164 | 372/54.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 20:04 |
| S46 | 9 | S45 and (mode near3 (selection or control or suppression or discriminat\$3)) | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 20:04 |
| S47 | 776 | 372/98.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 20:05 |
| S48 | 108 | S47 and (mode near3 (selection or control or suppression or discriminat\$3)) | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 20:05 |
| S49 | 15 | S48 and optical near3 loss\$2 | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 20:05 |
| S50 | 1225 | 372/99.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 20:06 |
| S51 | 169 | S50 and (mode near3 (selection or control or suppression or discriminat\$3)) | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 20:06 |
| S52 | 25 | S51 and optical near3 loss\$2 | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 20:10 |
| S53 | 486 | 372/103.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 20:10 |
| S54 | 66 | S53 and (mode near3 (selection or control or suppression or discriminat\$3)) | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 20:06 |

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| S55 | 625 | 372/18.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 20:12 |
| S56 | 109 | S55 and optical near3 loss\$2 | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 20:12 |
| S57 | 605 | 372/19.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 20:12 |
| S58 | 71 | S57 and optical near3 loss\$2 | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 20:13 |
| S59 | 66 | S58 not S56 | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2004/11/13 20:13 |